

EXHIBIT 31

Brooke T. Mossman, M.S., Ph.D.

Page 1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NEW JERSEY

- - -

IN RE: JOHNSON & :
JOHNSON TALCUM POWDER :
PRODUCTS MARKETING, :
SALES PRACTICES, AND : NO. 16-2738
PRODUCTS LIABILITY : (FLW) (LHG)
LITIGATION :
:
THIS DOCUMENT RELATES :
TO ALL CASES :

- - -

April 8, 2019

- - -

Videotaped deposition of
BROOKE T. MOSSMAN, M.S., Ph.D., taken
pursuant to notice, was held at Hotel
Vermont, 41 Cherry Street, Burlington,
Vermont, beginning at 9:12 a.m., on the
above date, before Michelle L. Gray, a
Registered Professional Reporter,
Certified Shorthand Reporter, Certified
Realtime Reporter, and Notary Public.

- - -

GOLKOW LITIGATION SERVICES
877.370.3377 ph | 917.591.5672 fax
deps@golkow.com

Brooke T. Mossman, M.S., Ph.D.

Page 353

1 Doctor? This is what you provided to me.

2 A. Right. Okay.

3 Q. Okay. I'm going to attach
4 that -- excuse me. Hold on. I'm going
5 to attach that as exhibit -- let's attach
6 Shukla as Exhibit 34.

7 (Document marked for
8 identification as Exhibit
9 Mossman-35.)

10 MR. SMITH: Let's do
11 Hillegass as 35. And then this
12 collective exhibit of reviewer
13 comments with the cover letters,
14 it's May 8, 2009, University of
15 Vermont, with Jedd Hillegass on
16 the bottom.

17 (Document marked for
18 identification as Exhibit
19 Mossman-36.)

20 BY MR. SMITH:

21 Q. And this is from a reviewer.
22 Methods, Page 6. "The dose of minerals
23 expressed as surface-based concentration
24 may not be intuitive to all readers. As

1 in the recent publication, Shukla, it
2 would be helpful if some information is
3 provided about the surface area of the
4 various minerals tested, as well as how
5 this translates into micrograms per
6 centimeter squared," right?

7 A. Yes.

8 Q. And then your response or
9 y'all's response was, "Additional
10 information regarding the surface area of
11 particulates used in these studies was
12 added to the methods section along with
13 how many micrograms squared per
14 centimeter squared translates into
15 micrograms per centimeter squared."
16 Right?

17 A. Okay. So I'm trying to
18 figure out whether this is with regard to
19 the Hillegass study; is that correct?

20 Q. Correct.

21 A. Okay.

22 Q. All right. This is my
23 question.

24 A. Sure.

Brooke T. Mossman, M.S., Ph.D.

Page 355

1 Q. The concentrations that you
2 used, that being -- and I'm talking about
3 Shukla. I'm talking about 34 --
4 15 micrometers squared per centimeter
5 squared and 75 micrometers squared per
6 centimeter squared, would translate to
7 what micrograms per centimeter squared?

8 A. Okay. And that's -- if you
9 look at Figure 2 in Shukla, Page 4 of 10.

10 Q. Yep.

11 A. And the top panel, you'll
12 see the vertical and the horizontal. And
13 if we look at asbestos and talc, you can
14 see here that the upper column, going
15 from 015 and from talc 15, et cetera,
16 that is the comparative weight per -- so
17 it's weight per unit area of dish.

18 So that's your weight
19 concentration.

20 The numbers below are your
21 surface area concentrations.

22 Q. Okay. So let's get on the
23 same page.

24 A. Mm-hmm.

Brooke T. Mossman, M.S., Ph.D.

Page 356

1 Q. If I'm looking at asbestos
2 below at 15 micrometers squared per
3 centimeter squared, how many -- what
4 would that translate to to micrograms per
5 centimeter squared?

6 A. Micrograms, it would --
7 Okay. So that would equal one.

8 Q. 15 would be one, right?

9 A. With asbestos.

10 Q. Right. And 75 would be --

11 A. 75 would be five.

12 Q. Five, okay.

13 A. And 15 would be
14 approximately -- well, it's 16.2, would
15 be one with talc. And it would be, again
16 in the same range, 75 versus 81 talc.

17 So we're actually adding
18 talc at higher surface concentrations but
19 fractionally so, as compared to asbestos.

20 Q. My question is, would the 15
21 micrometers squared per centimeter
22 squared for talc that you used the
23 concentration of in this case, would that
24 equal one microgram per centimeter

Brooke T. Mossman, M.S., Ph.D.

Page 357

1 squared?

2 A. Approximately, yes.

3 Q. Okay. That's what I
4 thought.

5 A. Yes. They're comparable.

6 Q. Okay. And 75 micrograms per
7 centimeter squared -- micrograms squared
8 per centimeter squared would equal five
9 micrograms per centimeter squared, right?

10 A. Yes.

11 Q. Okay. Now I'm on the same
12 page. That's what I needed.

13 A. Okay.

14 Q. All right. And do you
15 believe that those concentrations are
16 appropriate to use in in vitro studies to
17 determine the pathogenicity of minerals
18 such as talc and asbestos?

19 A. Yes. And that's based upon
20 the toxicity data that is provided in A
21 and B. So they're comparable
22 concentrations. The asbestos as we can
23 see at five, was toxic and the talc was
24 not. So we -- and you can see that in

Brooke T. Mossman, M.S., Ph.D.

Page 358

1 the dose-response that we did with five
2 concentrations of talc ranging from one
3 to 20.

4 Q. Okay. So talc you tested at
5 one microgram per centimeter squared,
6 five micrograms per centimeter squared,
7 ten micrograms per centimeter squared,
8 and 20 microgram per centimeter squared?

9 A. 15 and 20.

10 Q. 10, 15, and 20?

11 A. Yes.

12 Q. Okay.

13 A. So the message is that you
14 don't want to work with something that's
15 going to kill all the cells, so you can't
16 go higher. And in fact, that's a reason
17 that with time, we didn't look at the
18 higher concentration of asbestos.

19 Q. I want to attach this as
20 Exhibit 27 so I won't forget this.
21 Because I could.

22 (Document marked for
23 identification as Exhibit
24 Mossman-37.)

1 BY MR. SMITH:

2 Q. Here we are, Shukla,
3 "Appropriate Concentration Levels to
4 Determine Pathogenicity of Asbestos and
5 Talc." And this study used concentration
6 levels of talc, at one, five, 10, 15,
7 20 micrograms per centimeter squared,
8 correct?

9 A. Yes.

10 MR. SMITH: Okay. That's
11 Exhibit 37.

12 BY MR. SMITH:

13 Q. Okay. You provided, as we
14 discussed, progress reports to the IMA
15 during the course of this study; is that
16 correct?

17 A. After a year, yes. We
18 didn't provide them with progress
19 reports. I wrote them e-mails that the
20 asbestos data was positive, but the other
21 data didn't appear to be with regard to
22 the other materials.

23 Q. And they sponsored the
24 study, correct, along with EUROTALC?